

Appln No. 10/686,752
 Amdt. Dated 06/15/05
 Reply to Office Action of 04/01/05

In the Abstract of the Disclosure:

Please amend the Abstract of the Disclosure as follows:

~~Optimum bond parameters for a bond force F_b and an ultrasonic variable P_u and, optionally, at least one further bond parameter C_b of a Wire Bonder for ball bonding can be determined by means of a method with which a predetermined number of bond cycles is carried out, whereby the bond parameters to be optimised are each varied within a predefined range, whereby with each bond cycle n , after attachment of the wire ball to the connection point of the semiconductor chip, the following steps are carried out:~~

- ~~a) Application of a predetermined bond force F_{bn}~~
 - ~~b) Movement of the capillary out of the bond position in a predetermined horizontal direction whereby the current I_{bn} flowing through the drive which moves the capillary is monitored,~~
 - ~~c) Stopping the movement of the capillary as soon as the current I_{bn} decreases,~~
 - ~~d) Determining the maximum of the current $I_{bn,max}(F_{bn}, P_{bn}, C_{bn})$ from the progression of the current $I_{bn}(t)$ established during steps b) and c)~~
 - ~~e) Movement of the capillary to the bond position,~~
 - ~~f) Attachment of the wire ball to the connection point of the semiconductor chip,~~
- ~~and whereby, from the values $I_{bn,max}(F_{bn}, P_{bn}, C_{bn})$ established with the n bond cycles, these values for the bond force F_b , the ultrasonic variable P_u and the, if necessary, at least one further bond parameter C_b are determined as optimum bond parameters for which the current $I_{bn,max}(F_{bn}, P_{bn}, C_{bn})$ reaches a maximum.~~

A predetermined number of bond cycles is carried out in order to find optimum bond parameters for a wire bonder. The bond parameters to be optimized are each varied within a predefined range. With each bond cycle, after attachment of the wire to the connection point, the capillary is moved out of the bond position in a

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predetermined horizontal direction whereby the current flowing through the drive
which moves the capillary is monitored and its maximum determined.